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ABSTRACT

Each year, the Illinois community colleges conduct comprehensive reviews of their current program offerings. In fiscal year 1994, the colleges reviewed a total of 870 occupational, 176 general education or academic, 53 developmental and adult education, 90 academic and student support, and 22 other programs. Occupational programs were reviewed in the areas of business, consumer service, engineering related and precision work, health, home and institutional services, library assisting, mechanics and repair. The review of general education programs included academic and developmental/adult education courses in the areas of communications, humanities, science, math, social and behavioral science, and foreign languages. Developmental education programs were reviewed related to adult basic, adult secondary, and English-as-a-Second-Language programs, with many colleges noting the need for improved follow-up data on completions, retention, advancement to college-level coursework, and levels of student satisfaction. Academic and student support programs were evaluated by determining the level of student participation and service duplication. Support programs reviewed included testing and assessment, learning resource centers, instructional support services, counseling, financial aid, enrollment management, and supplemental programs. Of the 870 occupational programs reviewed, 649 were continued with minor improvements, 74 were significantly modified, 79 were scheduled for further review, and 68 were identified for elimination. Appendixes provide tables showing the numbers of programs reviewed in each area, review outcomes, and programs eliminated by college. (TGI)

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ACCOUNTABILITY REPORT:

COMMUNITY COLLEGE PROGRAM REVIEW

Fiscal Year 1994

ADDRESSING NEEDS DETERMINING COST-EFFECTIVENESS IMPROVING QUALITY

ED 390 490

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Illinois Community College Board

COMMUNITY COLLEGE PROGRAM REVIEW

Fiscal Year 1994

Illinois public community colleges weave a rich tapestry of programs and services to address the needs of their communities. The colors and shapes of the fabric, like the programs and services, are constantly changing. These changes come about through a process in which colleges add new and better offerings, mend or improve older ones, and eliminate those which are frayed and no longer serviceable. The process is called program review and this report describes the results of the fiscal year 1994 process and provides a statewide analysis of this major accountability effort established by the Illinois Community College Board in 1983.

In fiscal year 1994, community colleges reported reviewing a total of 870 occupational, 176 academic, 53 developmental and adult education, 90 student and academic support, and 22 other programs. A breakdown of this information by college appears in Table 1. The program review of occupational programs resulted in improvements to at least 726 programs. Sixty-eight or 8 percent of the programs were identified for withdrawal. Seventy-nine (9 percent) will be reviewed again next year. Colleges studied programs and evaluated the return on investment in terms of cost, priority for the institution, relevance to the labor market, and service to the community at large. Detailed tables referenced throughout the report appear at the end of the narrative.

Occupational Program Review

Common threads in the fiscal year 1994 reports of occupational programs were rising costs associated with technological upgrades required to keep curricula current, concerns about underprepared students and strategies to improve their success, efforts to increase student diversity, developing tech prep initiatives with area high schools, and numerous modifications to improve the viability of programs.

Recent ICCB rules changes require that all institutions in the system follow a prescribed schedule for occupational program reviews. Programs scheduled for review in fiscal year 1994 appear below.

BROAD PROGRAM AREA	CIP Code and Specific Program Area
BUSINESS	5203 Accounting 5202 Administrative & Managerial 5204 Administrative/Secretarial 5208 Financial Management
CONSUMER SERVICE	1203 Mortuary Science
ENGINEERING RELATED	1507 Quality Control 1508 Mechanical Engineering

BROAD PROGRAM AREA	CIP Code and Specific Program Area
HEALTH	5110 Medical Laboratory 5118 Ophthalmology 5126 Miscellaneous Health
HOME & INSTITUTIONAL SERVICES	2005 Home Furnishing
LIBRARY ASSISTING	2503 Library Assisting
MECHANICS & REPAIRERS	4702 Heating, Air Cond, Refrigeration
PRECISION WORK	4801 Drafting 4802 Graphics/Printing 4805 Precision Metal

Programs identified for review are the same programs on which student follow-up surveys were conducted during the previous year. In fiscal year 1993, community college graduates from nine broad program areas were surveyed approximately six to nine months following graduation. Graduates provided information on their attendance objectives, educational status, employment status, salaries, employment start-up, geographic locations of employment, satisfaction with employment, and other components related to their program of study. Results were analyzed in a report to the system. Aggregate data suggest directions for colleges to move in order to improve programs. For example, if a large number of students in a particular program are continuing their education, colleges will want to strengthen articulation agreements with senior institutions. Likewise, if a large number of program completers are unemployed or are not employed in a related occupation, college advisory committees may need to play a greater role in refining the curriculum for that program. Similarly, if a majority of graduates indicate low levels of satisfaction with career counseling, colleges will need to improve access and information in this area. This type of information can be very beneficial as colleges evaluate program need, cost-effectiveness, and quality during program review the following year and establish action plans for program improvement or elimination.

Table 2 summarizes the actions that were taken on occupational programs involved in this cycle of program review. Colleges were requested to categorize the actions as (1) continued with minor improvements, (2) significantly modified, (3) scheduled for further review, or (4) identified for elimination. Programs continued with minor improvements were those in which there was a well-defined need, high quality, and cost-effective delivery. Programs which were significantly modified were those that needed major changes to better address student or employer needs. Programs scheduled for further review were those in which serious concerns surfaced, the most common being low enrollment. Colleges will implement various remedies and reevaluate them at the end of the coming year. At that time, a decision will be made to modify or eliminate. Programs targeted for elimination are no longer viable.

A total of 870 occupational programs were reviewed; 649 were continued with minor improvements, 74 were significantly modified, 79 were scheduled for further review, and 68 were identified for elimination.

Table 3 displays curricula which colleges identified for elimination through the program review process in fiscal year 1994. These eliminations occur because of program consolidation, changes in employment demand, technological shifts, low enrollments, excessively high costs, or lack of faculty/staff resources. Sixty-eight programs were eliminated by 27 of the 49 colleges in the system. Hence, over one-half (55 percent) of the colleges discontinued programs.

The results of occupational program reviews can be beneficial in determining the need for new programs or modifying existing programs. As colleges examine program review outcomes, recommendations may be made to add a "reasonable and moderate" program extension because of a missing link in an existing program's curricula. Results of the statewide program review analysis can influence decisions for stand-alone or cooperative programs, and data from the follow-up study and the program review analysis may warn colleges that pursuit of certain programs is inadvisable.

As an addendum to their program review summary report submissions, colleges were asked to provide a written response to targeted questions posed by the Illinois Community College Board and the Illinois Board of Higher Education. The questions are based on perceived weaknesses identified in the occupational follow-up or other data submissions. Questions require further analysis at the local level. Answers to such questions provide a local perspective and are used by the ICCB and IBHE to make recommendations and direct policy from the state level. The questions and responses are noted in the programmatic analysis which follows. This information has resulted in recommendations for the following program areas: Accounting/Bookkeeping; Financial Management; Drafting; Welding; and Heating, Air Conditioning, and Refrigeration.

Business

5203 Accounting/Bookkeeping. All programs in this category are classified as Accounting Technician programs. There is, however, diversity among the 43 degree and 69 certificate programs offered by 42 colleges in the system. Some range from very basic certificate programs designed to prepare individuals for clerical positions to those designed for more advanced accounting positions. From their reviews of accounting programs, colleges elected to eliminate two programs and modify five. Fourteen programs will undergo further review in the coming year.

A comparison of ICCB data from 1989 to 1993 indicated that enrollments in Accounting programs declined 11 percent overall. Similarly, credit hours decreased 14 percent. Unit cost increased 31 percent, while the number of completers grew 32 percent.

A review of labor market supply and demand data showed that employment opportunities in this field are markedly decreasing for accounting technicians. Reduction of over 700 jobs annually is projected, leaving slightly more than 2,000 job vacancies available yearly. Associate degree and certificate completers filled fewer than 800 of these slots. However, the declining overall market, plus competition from baccalaureate graduates, coupled with low training-related employment rates of program graduates, would indicate close scrutiny and corresponding program adjustments are warranted. On the other hand, *Horizons*, a resource published by the

Illinois Occupational Information Coordinating Committee, states that "'accountants and auditors' is among the 50 occupations expected to have the largest number of job openings each year." This implies that students enrolled in capstone programs will fare better. There is a slight surplus of bookkeepers, and many of the available jobs require skill in operating computers. It is essential that programs in accounting include computerized instruction so students can compete in the job market.

The ICCB and IBHE chose accounting/bookkeeping programs as an area targeted for focus questions because 40 percent of the 342 survey respondents (N = 136) indicated they were employed in a job unrelated to their field of study. Of this group, two-fifths (N = 54) stated that they were employed in another field because jobs in accounting/bookkeeping were unavailable. Colleges were asked to ascertain whether local results were similar to the statewide trends and what reasons might exist for graduates being unable to find employment in their chosen field.

Colleges responded that students may have been employed in an unrelated field during their program and chose to stay in this position rather than switch jobs during uncertain economic times. Moreover, retaining current jobs may enable students to save money to pursue further education. Several institutions reported that AAS graduates are competing for jobs with baccalaureate-level accounting majors. However, labor market information shows a balance between statewide supply and demand at the baccalaureate level, although local conditions may vary. One college further speculated that efficiencies realized through the use of computers can sometimes make it difficult for employers to keep full-time employees busy. Another scenario was proposed which purports that students may perform accounting or bookkeeping functions along with many other duties since occupations are becoming more multitasked and businesses are "right-sizing." Job titles may be generic, rather than accounting specific, and since information is self-reported, it is the student's perspective whether or not they are job related.

Realizing the nature of today's businesses, Elgin Community College established a certificate in Accounting/Office Administration which combines basic bookkeeping, payroll accounting, and office skills. The new certificate is expected to be advantageous for small office environments. Black Hawk College's program includes accounting, bookkeeping, actuarial, auditing, and accounting course options to suit students' needs in light of business' downsizing efforts. The college's report provided a further example to explain why so many students were not employed in their field: jobs are more plentiful in other locales, such as the Chicago area, but some students are place-bound or otherwise reluctant to relocate.

In addition to the fact that a significant number of students are working in jobs unrelated to accounting, colleges identified other programmatic concerns. Several institutions reported high levels of attrition in Accounting I courses. This course requires that students be proficient in math and quickly master concepts which build on one another throughout the course. Colleges indicated that students may seek a knowledge of accounting to increase job security or improve eligibility for advancement, yet some may be unable to make satisfactory progress. To address this, Parkland College offers a preparatory course to provide students with a background in basic accounting. Highland Community College plans to implement a year-long Accounting I course to provide a better foundation for adult and returning students who need accounting skills to perform job functions but are unable to keep pace with traditional coursework. For other

students, the college will develop a proficiency exam so students can eliminate coursework covering material in which they are already knowledgeable. William Rainey Harper College transfers at-risk students to a preparatory accounting course after the first hour exam. Olive-Harvey College noted a significant decrease in program enrollment because of changes in assessment and placement policies. Assessing students at entry resulted in shifting a large number of students into developmental and pre-credit programs. Improved student success and increased retention is the expected outcome.

A key to increasing employment opportunities is to provide students with computer skills employers expect. This may include instruction in spreadsheets, databases, graphics, and word processing. Two thirds of the colleges reported plans to add or supplement computerized instruction in the curriculum. Others are establishing entrance requirements, adding a cooperative education practicum, making stronger contacts with business/industry, promoting greater involvement by advisory committees, improving student diversity, fostering teaching/learning activities, and intensifying articulation initiatives. State Community College has an adjunct faculty member who is an Internal Revenue Service employee. This instructor has been instrumental in recruiting students into the IRS's minority recruitment program after graduation. Oakton Community College's accounting department is providing faculty development training to discuss and demonstrate critical analysis, collaborative learning, and research methods to increase faculty exposure to techniques likely to enhance student learning. Colleges which expanded articulation and developed tech prep initiatives included South Suburban College, Danville Area Community College, Kankakee Community College, and the College of Lake County.

Course articulation can be problematic if students are unclear about their goals or do not understand the differing purposes of the AAS versus the AS degree. Black Hawk College noted this confusion and plans to increase information about career planning and job placement services, including advisement concerning which degree to pursue, depending on student aspirations.

The College of DuPage worked with its advisory committee to develop an employer survey of skills needed in accounting. The results will be integrated into the curriculum. John Wood Community College designed a delivery system to combine open and traditional delivery for tax accounting, payroll accounting and intermediate accounting II. The college reports this strategy has proven to be very cost-effective in providing instruction in some low enrollment courses.

In some districts, colleges find that degrees are more useful that certificates. In others, the opposite is true. For example, Lewis & Clark Community College claims the local preference among employers is away from the degree and toward the certificate. Conversely, Illinois Central College indicates that about an equal number of employers express similar needs for students with degrees and certificates. At other colleges, most students in accounting curricula are interested in transferring to a four-year college or university. Oakton Community College reports that 80 percent of accounting students plan to transfer before completing a degree, and John Wood Community College's transfer program has nine times the enrollment of its AAS degree.

Issues and recommendations. The preceding information poses several questions for the system. Specifically, answers need to be found to explain why labor market information indicates there is demand for accounting technicians, yet substantial numbers of students are unable to find jobs in their field. ICCB staff will work with institutions in which follow-up data paralleled or fell below the statewide average of students in unrelated jobs. Solutions will be sought in terms of modifying curricula, limiting enrollments, and consolidating or eliminating programs. In addition, it is essential that accounting curricula include computerized instruction to adequately prepare students for the nature of accounting tasks in the world of work. Input from advisory groups can help determine the extent and the manner in which computers should be included. Furthermore, strong consideration should be given to establishing entrance requirements and prerequisite courses to increase retention in beginning-level accounting courses.

5202 Business Administration and Management. This CIP code category includes degrees and certificates in General Business Administration and Management, Logistics and Materials Management, Office Supervision and Management, and Operations Management and Supervision. There currently are 66 degrees and 84 certificates in the broad area offered by 41 community colleges. The vast majority of curricula and student enrollments are in General Business Administration and Management. Colleges plan to significantly modify seven programs and eliminate five. Eight other programs are scheduled for further review during fiscal year 1995.

Data indicate that the number of credit hours generated has declined 16 percent in the past five years and enrollment has dropped 20 percent. These decreases have resulted in a higher unit cost (+28 percent). The number of completers rose 18 percent. These patterns were representative of all six-digit CIP code categories except Logistics and Materials Management which experienced an increase in enrollment of 42 percent. No specific questions were directed to the colleges for this program area.

Horizons advises that, in Illinois, the supply and demand for these occupations are in balance. "General managers and executives" and "office managers" are included in the 50 occupations expected to have the largest number of job opportunities each year. For many job applicants, an AAS degree is sufficient; however, graduation from a baccalaureate program and progressive experience is often a minimum requirement for general managers. Therefore, of the four program groups in this CIP code category, articulation of General Business Administration and Management programs is very appropriate. Students who begin with a goal of attaining an AAS degree in this area should not be penalized by a loss of credit if later they opt for a baccalaureate degree. Colleges are, therefore, encouraged to articulate courses and develop capstone agreements with senior institutions.

Program strengths and quality enhancements as detailed in program review reports include the following: Danville Area Community College plans to add a TQM course which will emphasize specific standards of quality as determined by ISO 9000 and standards for the Malcolm Baldridge Award. Highland Community College was chosen to be a WordPerfect Demonstration Site and is being used as a work skills testing program for business and industry employment screening. Moraine Valley Community College used supplemental money from a Carl D. Perkins grant to upgrade its Business Administration program, provide support for at-risk students, and hire a

career recruiter to increase enrollment. Oakton Community College uses management simulation software to teach decision making in a variety of business situations.

5204 Administrative/Secretarial. This category includes certificates and degrees in Administrative and Secretarial Services, Executive Assistant/Secretary, Legal Administrative Assistant/Secretary, Medical Administrative Assistant/Secretary, Court Reporter, Receptionist, Information Processing/Data Entry Technician, and General Office/Clerical and Typing Services. All colleges offer programs in these six-digit CIP codes for a total of 140 degrees and 250 certificates. As a result of program reviews, colleges will eliminate 16 programs and significantly modify 18. Fifteen are scheduled for further review in fiscal year 1995.

The analysis of five year data displayed evidence of a growing trend that more students are enrolling to upgrade skills through specific courses rather than complete degrees and certificates. The number of credit hours generated increased substantially by 42 percent. Program enrollment was down 6 percent, while the number of completers climbed 23 percent. Unit costs rose 41 percent during this period.

A review of labor market supply and demand data projects strong employment opportunities within this general field, which encompasses dozens of occupations. However, some opportunities, such as those in data entry and stenography, are declining. Prospects are especially good for students with strong communications skills, proficiency with computers/word processing, and specialized skills such as in legal or medical secretarial fields.

College reports identified concerns regarding program diversity in that low salaries, limited opportunities for career advancement, and gender stereotyping in society at large which can have a negative effect on program recruitment. Colleges also described methods of addressing student needs and keeping programs technologically current. Waubonsee Community College offers numerous eight-week courses for greater scheduling flexibility and to provide students with necessary skills in a shorter time period. Danville Area Community College replaced shorthand classes with notetaking classes and initiated a job search seminar. These modifications came about as a result of advisory committee input. Kaskaskia College program enrollees go through a job search simulation, including job procurement, interviewing sessions with community leaders, and follow-up activities. Wabash Valley College reported that the strength of its program lies in the internship experience. Shawnee Community College has created a model office lab setting which contains various types of office equipment, such as a fax machine, color printer, shredder, letter folder, and graphic calculator, to give students first-hand knowledge of machines they may encounter on the job site. Several institutions, including John A. Logan College, are making the transition to computers for all keyboarding classes.

William Rainey Harper College's program coordinator has coauthored many books in word processing fields. Joliet Junior College plans to initiate program improvements by strengthening tech prep and improving faculty development opportunities including off-campus training. Kankakee Community College was able to reduce withdrawal rates in administrative/secretarial programs from 19 percent to 10 percent over the past five years. As a method of assessing student outcomes, Illinois Central College is considering using the Certified Professional Secretaries Exam as the culminating activity to its Executive Secretarial program.

5208 Financial Management. Categories included in this CIP code include Banking and Financial Support Services and Investments and Securities. A total of 23 degrees and 30 certificates are offered by 22 colleges, all of which are in Banking and Finance except two certificate programs in Investment and Securities. From action taken on programs for fiscal year 1994, five programs will be significantly modified and seven will be eliminated. Eight are scheduled for further review in 1995.

A five-year comparison of data shows a 20 percent increase in unit cost. Over the five-year time frame, credit hours generated increased 78 percent. The largest increase occurred between 1992 and 1993. However, during this five-year period, program enrollment declined nearly 46 percent. The number of completers remained relatively stable, ranging from 45 to 66.

Labor market information indicates an oversupply of graduates in banking and finance management, including over 2,300 baccalaureate degree graduates and 65 certificate and degree graduates, compared to only 1,700 job openings statewide. Due to this oversupply and higher levels of education requirements for some positions, certificate and AAS programs are not likely to be viable unless they are articulated for transfer or fill a specific local market niche. Positions for bank tellers are expected to decline by nearly 200 jobs annually over the next ten years. Other financial support occupations are more promising, with 8-20 percent growth rates expected for loan and credit clerks, credit checkers, account clerks, and loan interviewers. Labor market data do not accurately capture the supply within these occupations, however, so careful gauging of enrollments versus jobs is advisable in these specialties.

Colleges were asked to address follow-up survey respondents' high unemployment rates (16.7 percent), whether they agreed with *Horizons* that postsecondary training does not contribute significantly to an applicant's employability, and if students could obtain a degree in two years.

The latter question has relevance to consumer protection issues. Curricula offered by community colleges are either termed one- or two-year programs. Many students take longer to complete, but as a matter of consumer protection, students who attend full time with the intent to complete a degree, should be able to finish in two years. Classes with insufficient enrollment may result in course cancellations. As a result, students may experience difficulty in fulfilling graduation requirements. Thus, the rationale for the question. Most institutions replied that degrees could be obtained in two years. Other colleges reported that joint decisions by bank officers, bank employees, and campus administration have resulted in scheduling required courses over a longer period.

Despite the fact that *Horizons* states "most employers prefer a high school graduate with some experience in working with figures or in clerical work" in support positions, colleges maintained that a degree often was an implicit requirement for advancement. Students with degrees are more likely to fare better if downsizing occurs as a result of bank mergers. Many colleges determine course offerings based on specific requests by the American Banking Industry (AIB). A review of program content statewide shows considerable variation. Numerous programs are slanted toward management. Others have a clerical foundation, and still others have a general focus which could apply to either career direction.

William Rainey Harper College reported that banking legislation over the past two years has caused curricular modifications. First, the college professes that the passage of Illinois Branch Banking Law allows banks to "branch" at will. The result will be fewer, larger banks which have different training needs than smaller banks. Secondly, the Truth in Savings Act altered the way savings yields are calculated, which alters the products banks offer. Thirdly, in 1994, banks were authorized to offer financial services similar to those offered by investment firms. Two other colleges, Oakton Community College and Triton College, have broadened the scope of curricula to include finance. Courses cover all types of financial institutions, not only banks.

Based on colleges' relationships with their local banking and finance employers and the high unemployment rate of 1992 graduates, it seems that the students who benefit most from this curriculum are those already employed.

Issues and recommendations. Information from program reviews signal the need for further study of banking/finance programs. ICCB staff plan to review curricula in accordance with American Institute of Banking (AIB) recommended coursework. Colleges are requested to modify catalogs and recruitment brochures to clearly designate whether programs are designed for transfer, skills training for those already employed, or for students desiring career entry. Cooperative instruction would be advantageous, particularly for upper-level coursework.

Consumer Service

1203 Mortuary Science. The only program in this CIP code is offered by Malcolm X College and was reviewed in fiscal year 1993. At that time, the newly-accredited program had only been in existence one year. However, the college's preliminary findings showed strong support for the program which has an active advisory committee. Numerous cooperative relationships were being established. Statewide labor market supply/demand data substantiate the need for existing programs.

Engineering Related and Precision Work

1507 Quality Control. Two types of Quality Control curricula were reviewed: Occupational Safety and Health Technology and Quality Control Technology. Occupational Safety and Health Technology/Technician curricula are designed to prepare individuals to apply basic engineering principles and technical skills in support of professionals engaged in maintaining job-related *health and safety* standards. The second curricular area, Quality Control Technology/Technician programs, is divided among ten colleges and includes 16 certificates and four degrees. These programs prepare individuals to apply basic engineering principles and technical skills in support of professional engaged in maintaining consistent *manufacturing and construction* standards.

Statewide information on Quality Control programs indicates that overall, the number of credit hours generated is increasing, as are unit costs. When the two curricular areas are examined together, enrollment is down a total of 12 percent from five years ago. The number of completers has risen 49 percent. Distinct differences are noted when the data are examined separately.

Students, particularly those enrolled in Occupational Safety and Health Technologies, appear far more interested in taking specific courses than obtaining a degree or certificate.

	Occupational Safety and Health Technologies	Quality Control Technology/ Technician
Credit hours generated:	+ 21%	+ 6%
Unit Cost:	- 20%	+ 29%
Program Enrollment:	- 55%	- 3%
Completers:	< 10	+ 46%

Furthermore, employers report the need for quality control subject matter to be infused with other occupational programs, particularly in manufacturing technology, as well as the need for programs in quality control.

From follow-up study results, colleges were asked to examine course enrollment patterns in Quality Control and Safety Technologies and determine whether programs should be continued, whether only specific courses should be offered, or whether courses should be offered within other curricula or as vocational skills courses.

Correspondingly, colleges have been instituting a variety of actions on these programs in recent years. At the beginning of 1994, only five certificates and one degree in Occupational Safety and Health Technologies were active. Seven other certificates or degrees had been inactivated or withdrawn in 1991, and three will be eliminated as a result of fiscal year 1994 program reviews. This will leave only two colleges with active programs. Six certificates in Quality Control Technologies were inactivated or withdrawn during the past five years. An examination of program review outcomes shows that three programs are scheduled for elimination and one will be significantly modified.

In its Quality Engineering Technology program, Rock Valley College attributed decreasing enrollment statistics to the fact that quality is becoming the responsibility of all employees rather than those in one department. As a result, fewer quality professionals are needed. The college uses an innovative learning strategy in which student teams address actual company process/product problems. Students define the problem at the company site and obtain data to determine a statistical solution.

At Richland Community College, enrollment in its production control program has tripled in the past six years. The college plans to consider eight-week classes in order to be more responsive to student and employer needs. Program quality will be enhanced by establishing a list of workplace competencies. At Frontier Community College, many classes are delivered on site, utilizing specialized equipment supplied by local industry. Moraine Valley Community College reports having one of the few nondestructive evaluation programs in the nation. The program, which is fully articulated with Lewis University and area high schools, is a model for the American Society for Non Destructive Testing.

The Quality Control program area bears close scrutiny over the next few years. It is a constantly evolving and changing area.

1508 Mechanical Engineering. This CIP code category includes degrees and certificates in two curricular areas: Mechanical Engineering/Mechanical Technology Technician and Computer-Aided Design. A total of 37 degrees and 44 certificates are offered by 35 colleges. Five programs will be modified significantly and three will be eliminated. Three others are scheduled to undergo further review in fiscal year 1995. Differences in credit hour generation, unit cost, enrollments, and completers over the last five years are quite evident from the table below.

	Mechanical Engineering	Computer-Aided Design
Credit hours generated:	- 13%	+ 61%
Unit Cost:	+ 32%	- 6%
Program Enrollment:	- 2%	+ 96%
Completers:	+ 29	+101%

Computer-Aided Design courses can be found in both mechanical engineering and precision work (drafting) programs; therefore, for purposes of analysis, information on drafting programs also is included in this section.

Nearly every college's report described the high cost of keeping these programs technologically current and the need to find funding solutions. One way colleges have traditionally attempted to cut costs is by obtaining donations for materials from the private sector. However, as companies adopt cost containment strategies, these sources may evaporate. Through an agreement with Autodesk Corporation, Moraine Valley Community College keeps the curriculum current through frequent software upgrades.

Various colleges reported on efforts to improve the diversity of students in mechanical engineering programs. Rend Lake College's Architectural Department worked with the Building Fairness Program to establish an Architectural Camp for 18-20 females during the summer to familiarize them with CAD. Four hearing impaired students are enrolled in CAD programs at Lewis & Clark Community College. Similarly, South Suburban College entered into an agreement with the Chicago Project With Industry (CPWI) to provide CAD training for physically challenged students. The college reports that placement of CPWI students is very high.

4801 Drafting. Certificates and degrees in this CIP code area are delineated as follows: General Drafting, Architectural Drafting, Civil/Structural Drafting, Electrical/Electronics Drafting, and Mechanical Drafting. There are 27 degrees and 62 certificates offered by 34 colleges. Between 1989 and 1993, credit hours declined 11 percent; enrollment dropped 22 percent. (In 1993, Civil Drafting and Electrical Drafting showed zero program enrollments.) Across drafting programs, the percent of completers grew 6 percent, but unit costs escalated 151 percent. Eleven programs will be discontinued, and four are scheduled for further review in the coming year. In addition, one college has chosen to limit enrollments.

In addition to concerns about rising costs, colleges reported difficulty in allowing students sufficient lab time. The high cost of hardware and software often makes it necessary to limit the number of training stations available. Several institutions will address this by adding CAD capabilities to open computer labs.

Escalating costs are not the only problem confronting colleges with these curricula. A review of labor market supply/demand data reflects approximately 500 drafting graduates compared to 400 projected jobs, resulting in an oversupply in the general drafting field. However, 130 of these graduates received CAD certificates or degrees, and many employers indicate that proficiency in CAD is needed within all drafting fields.

According to the *1992 Follow-up Survey*, one-quarter (N = 21) of all employed graduates of mechanical engineering programs were working in an unrelated field. Eleven percent (N = 11) were unemployed and seeking employment. A higher than average number (31 percent) were furthering their education. Survey results point out that 55 percent of drafting program graduates were working in unrelated fields. Reasons cited by students included lack of available jobs in drafting and better pay in other fields. Indeed, *Horizons* states that the balance of supply and demand for drafters is much heavier on the supply side.

In contrast, Rend Lake College reports a highly successful program with 85 percent of all drafting graduates employed. Even so, the college plans to expand articulation agreements, increase diversity, continue curriculum revisions to include speech and math skills, upgrade equipment, increase retention, develop a system to monitor student retention and completion, and implement cooperative education programs for all students. In the spring of 1993, Richland Community College received approval from Intergraph to serve as a regional training center for Intergraphy software. Intergraph is a CAD package that has become the standard for the state of Illinois. The college reports that enrollment has grown over 300 percent in six years. Richland Community College also plans to incorporate competencies identified in the SCANS report for America 2000 into the curriculum for all students seeking AAS degrees. One hundred percent of those completing the advanced certificate in industrial drafting are employed.

For its drafting and other occupational programs, Lincoln Land Community College is developing a course addressing employability skills. The course is designed to be self-paced, utilizing computer-assisted, hands-on, and self-paced instruction learning activities.

4802 Graphics/Printing. Certificates and degrees assigned to this Precision Work CIP code may be included in the Mechanical Typesetter and Composer, Lithographer and Platemaker, Printing Press Operator, or Desktop Publishing Equipment Operator categories. There are 11 degrees and 30 certificates offered by 20 colleges. Eleven programs will be modified significantly and three will be eliminated.

The review of data shows favorable statistics between 1989 and 1993. Credit hours vaulted 145 percent, while program enrollments increased 13 percent. Completions grew 79 percent. Unit costs were on the upswing, increasing 57 percent. Mechanical typesetter and composer programs benefitted from significant increases in credit hour generation. However, the biggest gains can be attributed to desktop publishing, a relatively new program at community colleges. For example, 875 credit hours were generated in 1992. One year later, this figure swelled to 5,198 credit hours.

Statewide labor market data show a substantial number of jobs available in the printing and graphics arts industry, covering dozens of occupations, as compared to the supply. Some of these occupations, however, are showing a decrease in employment. For programs to be viable, their focus needs to be on new technologies and the strongest occupations within this cluster in a college's local labor market.

Various examples of current or planned activities relating to program quality were described in the program review reports. Strong industry ties have provided Kennedy-King College with donations of equipment, partnerships for training current employees, and internship opportunities for students. The college plans to concentrate on the preparation of student portfolios in order to enhance marketability. Harold Washington College will improve the quality of its program by establishing a separate high-end digital prepress certificate program; researching trade and industry sources for instructors' in-service training; and targeting institutions for articulation and foundations and associations to build cooperative relationships. South Suburban College will add TQM to its AAS requirements and will implement a graduating student evaluation performed by industry judges. Enrollees in a graphic arts production course will develop printed materials at cost to finance student activities. Triton College indicated that the primary challenge for its program was to keep the program current in spite of a sizeable amount of industry donations.

Some colleges report that graphics printing programs in CIP code 5004, Design and Applied Arts, are similar enough to their Desktop Publishing Equipment Operator programs that they chose to review them concurrently. The College of DuPage reports that its graphic design arts program is the fastest growing technical program on campus. Enrollment and credit hours have more than doubled in five years. State Community College plans to expand its multicertificate program to a two-year degree. Other campuses are developing capstone agreements.

4805 Precision Metal. Specific degrees and certificates may be assigned to the following CIP code categories: Machine Shop Assistant, Patternmaker, Sheet Metal Worker, Tool and Die Maker/Technologist, Welder/Welding Technologist, Numerical Control, or Machinist/Machine Technologist. There are 35 degrees and 131 certificates offered by 41 colleges, with slightly more than two-fifths of these (42 percent) in welding. Eight programs will be eliminated and four will be modified significantly. Thirteen are scheduled for a second review in the year ahead.

An analysis of data shows slight increases in credit hours (4 percent), unit cost (17 percent), enrollment (1 percent), and completions (54 percent) between 1989 and 1993. Three areas, Sheet Metal Worker, Welder, and Numerical Control, experienced decreases in program enrollment, but increases in the number of credit hours generated overall. This leads to the conclusion that more students have goals of upgrading specific skills than obtaining a formal degree or certificate. Yet, some colleges report that students are being hired prior to graduating. Welding credit hours comprise 56 percent of the total number of credits generated in this four-digit CIP code category.

Information from the *1992 Follow-up Survey* revealed that welding graduates had an unemployment rate of 13.8 percent. Nearly one-third were working in jobs unrelated to their training. The reason given most by respondents (42.1 percent) was an inability to find a position in the field; however, several colleges reported that local results were not similar. Southeastern

Illinois College reported that welding skills are used in conjunction with a variety of occupations, including farming, auto repair, industrial maintenance, mining, and oil field maintenance. The diversity of these occupations may prompt students to respond that, although their jobs employ welding skills, they are not classified as welders.

Precision metal covers a broad range of occupations, many of which show strong employment opportunities, and some which are decreasing. In machine tool operations, there is a shortage of trained personnel overall, but a dozen machining specialties are experiencing employment declines. The same scenario applies to sheet metal, so programs in machining and sheet metal need to focus on the most promising specialties and provide broad training in the occupational field. Tool and die continues to reflect strong employment opportunities, as evidenced by state labor market data, as well as Tooling and Manufacturing Association data. Welding, on the other hand, continues to show an oversupply of individuals completing training programs, decreasing employment opportunities in some specialties, and decreasing need due to robotics, as well as competition from laid off welders. Employment opportunities are strongest for individuals experienced with alloys and new metals.

Outcomes from the program review process include the following: Wabash Valley College is completely revising its Machine Shop Technology program through a Developing A Curriculum (DACUM) process. This is a method in which employers and colleges jointly perform an occupational analysis and design corresponding instruction. Elgin Community College added a plastics option to its Industrial Manufacturing Technology program which gives students an opportunity to diversify their skills. Waubonsee Community College expects employment opportunities to increase since the precision metal industry is the fourth largest in the counties included in its district. The college cites information from the Valley Industrial Association report which states that 109 machinists and 54 CNC operators will be needed within the next two years. Lincoln Trail College will withdraw its sheet metal certificate.

Richard J. Daley College has a multiple spindle program which includes a work-based learning component. The technical portion of the program is subcontracted, and teachers rotate day and evening so that all students receive adequate instruction on precision machinery. Students are given industry-specific proficiency examinations. An articulation initiative recently was established with Senn High School and the Illinois Institute of Technology. Partnerships mentioned in other reports include Lewis & Clark Community College's machine tool program, which is affiliated with District 9 of the International Association of Machinist and Aerospace Workers, and McHenry County College's program, which has a partnership with area tool and die shops associated with the county's Industrial Education Training Association.

Black Hawk College's machine tool program provides a bridge to its mechanical tech program since three of eight courses are required by or are prerequisites for the new award-winning John Deere Electro-Mechanical degree. Sauk Valley Community College plans to integrate its programs in mechanical design and machine tool.

Kaskaskia College, Richland Community College, and Carl Sandburg College have open entry/open exit welding programs, offering flexibility to meet student needs. Parkland College offers only courses in welding. The college currently is collaborating with the University of Illinois to merge welding labs, which is expected to contribute to the efficiency of both

operations. In the summer of 1993, students and faculty at Southeastern Illinois College contracted with a company to produce 20,000 spits for ovens to be used by a fast-food chain. Morton College eliminated a full-time faculty position and will use only part-time instructors in welding.

Issues and recommendations. From a statewide perspective, labor market information and follow-up data for welding programs warrant continued observation. Colleges with three or more degrees or certificates assigned to this six-digit CIP are encouraged to analyze whether all are needed to serve the local job market. If the role of a particular institution's program is skill upgrading for those already employed in the field, college catalogs should reflect this. Enrollment caps or program eliminations may be appropriate.

Health

5110 Medical Laboratory. All programs are classified under the heading of Medical Laboratory Technology. There are 15 degrees and two certificates offered by 14 colleges. All programs will be continued without modifications, eliminations, or further review.

An analysis of five-year trend data shows an increase of 25 percent in the number of completers. Program enrollment is up 46 percent and the number of credit hours generated skyrocketed 91 percent from fiscal years 1989 to 1993. Typically, costs for health programs are at the high end of program costs for all types of programs. Yet, with the dramatic increase in the number of credit hours during this five-year period, costs actually have declined. In addition, colleges described various efforts to trim program expenses. These included cooperative buying plans with area hospitals, buying in greater quantities, and accepting donations from affiliated hospitals.

The increase in completers is welcome news to the industry as a shortfall of workers is expected. A 14 percent vacancy rate for medical laboratory technicians has been reported in Illinois, Indiana, Wisconsin, Michigan, and Ohio according to the March 1993 *Journal of Laboratory and Clinical Medicine*. By the year 2000, the vacancy rate will increase to 46 percent. Statewide labor market data show a demand of over 110, compared to a supply of 74, showing need for the existing programs and room for expansion. Thus, the forecast looks good for community college medical laboratory programs, but efforts to increase enrollments may be restrained due to accreditation requirements. MLT curricula must contain clinical as well as classroom experiences. Many colleges are encountering difficulty as they attempt to acquire additional clinical affiliates. Unless these can be found, enrollments must be restricted.

A further limitation to providing a sufficient number of graduates to meet the needs of the health industry is the problem of student recruitment and retention. College reports identified concerns that entering students are often inadequately prepared for the academic rigor of MLT programs. Such rigor is critical to the success of program graduates in obtaining national certification, which is expected by most employers. To address this issue, Kankakee Community College plans to initiate curricular modifications to ease students' study load and recommend students take basic academic courses before entering the program. Malcolm X College plans to identify check points for students to provide a continual assessment of outcomes. The college also plans

to expand tech prep and other recruitment activities to increase the pool of qualified applicants to meet projected employment demands.

Other efforts to improve programs included upgrading math requirements, improving articulation, making course objectives more competency-based, updating equipment, adding computer-based instruction to curriculum, improving lab facilities, and upgrading library resources.

Attesting to the quality of MLT training provided by community colleges, numerous institutions cited accreditation by the National Accrediting Agency for Clinical Lab Sciences. Students from Illinois Central College compete annually in the MLT Student Bowl Competition, which is affiliated with the Illinois Clinical Laboratory Science Association. Illinois Central College students have participated in this event since 1984 and have won the state competition for six of the past ten years.

Promising opportunities exist for medical technologists and medical laboratory technicians. Currently, representatives from secondary schools, community colleges, senior institutions, faculty from clinical-based programs, and health practitioners have embarked on an initiative to provide seamless articulation of coursework. Results, to date, are positive. Community college students can look forward to increasingly successful transfers as a result of this initiative.

5118 Ophthalmology. This category includes Ophthalmic Medical Technologist. Triton College is the only institution offering this degree, which is nationally accredited. No concerns were noted. Statewide labor market data show substantial employment opportunities in this field.

5126 Miscellaneous Health This category includes Therapeutic Recreation Health Aide of which there are two programs in the system. Such programs typically are very involved in community activities for disabled and elderly populations. No concerns were noted. Statewide labor market data do not disaggregate these occupations from their broader occupational cluster and, thus, cannot indicate whether or not there is a labor market need. Colleges need to rely on local indicators, such as job placement rates, advisory committee input, classified advertisements and local surveys, to determine program need.

Home & Institutional Services

2005 Home Furnishing. Certificates and degrees in interior design are the mainstay of this CIP code category. There are seven degrees and three certificates in interior design which are offered by seven colleges. Two programs will be modified significantly and one will undergo further review in the coming year.

Data show similar declines in the number of credit hours generated and student enrollment figures (17 and 18 percent, respectively) over a five-year period. The number of completers increased 6 percent, and unit costs rose 42 percent during this same time period.

A review of statewide labor market data shows an oversupply of program graduates of two to one. Therefore, it is not surprising that results of the follow-up study indicated that 32 percent of the graduates were employed in positions unrelated to their training. Graduates substantiated

job market conditions by declaring their inability to find a job related to their field of study. *Horizons* reports that "most employers prefer a bachelor's degree and experience."

Colleges were questioned whether local follow-up survey results on the lack of relatedness of employment were similar, the extent to which two-year graduates were competing with bachelor's-level graduates for jobs, and the extent of program articulation. Survey results varied among colleges. Some reported analogous data, while others responded that related employment rates in related occupations were as high as 75 percent. There was speculation that self-employment in the field of interior design can be discouraging. Students are swayed by the glamour of such careers, but wages are often low and employees must be able to work varying hours. Students who stretch their education over a number of years may cause an employer to consider their training outdated by the time they are ready to apply for employment. Illinois Central College reported that its survey showed nearly one-third of interior design students were taking the program for personal fulfillment. The college plans to modify the curriculum to include CAD training, which has become standard in interior design, and will develop a transfer program or seek capstone agreements. Two institutions, the College of DuPage and Prairie State College, plan to seek national accreditation.

Issues and recommendations. Viewed from a statewide perspective, the viability of interior design programs is a concern. For certificates and degrees to be effective, there are strong implications that programs must be articulated for transfer, serve a clearly identified local labor market niche, be technologically current, and impose enrollment caps to match employment opportunities. Illinois Community College Board staff recommend convening a task force of college deans and interior design department heads to analyze accrediting agency curriculum criteria and develop a plan for the future of interior design programs in community colleges.

Library Assisting

2503 Library Assisting. A review of data shows positive trends for library assisting curricula. Over the five-year period between 1989 and 1993, the number of credit hours generated advanced 32 percent, program enrollment rose 19 percent, and the number of completers climbed 131 percent, from 26 to 60. Despite these increases, unit costs were up 57 percent. There are six degrees and seven certificates offered by seven colleges. Only one program will be eliminated; those remaining will be continued as is.

Statewide labor market supply/demand data show ample employment opportunities for library assistants. Viability of local programs will depend, in part, on whether or not local libraries prefer to hire high school graduates or college-trained individuals.

In the northern half of Illinois, positive results emanated from program review reports. For example, the College of DuPage offers the only program in its region. Enrollments have climbed 41 percent and completers have more than doubled in five years. The program has three tracks; students may attend days, evenings, or weekends. Rock Valley College reports a significant number of students are employed and more interested in upgrading skills than completing a degree or certificate. Likewise, the College of Lake County indicates that most of the students in its library assisting program are employed. Support for the program is

growing as libraries downsize and library technical assistants are hired instead of employees with master's degrees. The college's curriculum will be modified, dropping the audio/visual course and adding a course in children's services. Telecommunications has been utilized to serve students on numerous campuses.

A different perspective was offered by Lewis & Clark Community College. The college states that small rural libraries in the southern part of the state are not requiring formal training for library support positions. Most jobs are to replace rather than add employees. In addition, small libraries cannot afford to train employees. The college plans to investigate a cooperative agreement to enroll Missouri students and has changed the name of the program to *Library and Information Technology* to represent the changing scope of library work.

Mechanics & Repairers

4702 Heating, Air Conditioning, & Refrigeration. There are 16 degree and 37 certificate programs in Heating, Air Conditioning, and Refrigeration (HVAC) offered by 25 colleges. Six programs will be modified significantly and two will be eliminated.

Data show that HVAC program statistics were relatively unchanged between 1989 and 1993. In terms of the number of credit hours generated, there was a slight (2 percent) increase. Enrollment increased by 3 percent, and completions were down 4 percent. Sauk Valley Community College indicates that students are obtaining employment prior to graduating. Many Kennedy-King College students are already employed and seeking solely to upgrade skills.

Statewide labor market data show an oversupply, with 600 program graduates compared to 360 projected job openings. Colleges were asked to respond to a focused question relating to the percentage of students (34.7) which were employed in positions unrelated to their training. Students' responses to *1992 Follow-up Survey* questions indicated that half were working outside their field because they could not find a related position.

Reports indicated that most institutions expect enrollments to increase as chlorofluorocarbons (CFC) technology is phased out, based on environmental concerns necessitating that older equipment be replaced or modified to meet standards of the Clean Air Act. Program costs have escalated due to the expense of refrigerants and changes in technology resulting from environmental concerns.

William Rainey Harper College indicated more students are finding positions with companies servicing large buildings. As a result, students responding to the follow-up survey may have a broader job title and may not have indicated their current job was solely to perform HVAC tasks. Kankakee Community College, College of Lake County, and Moraine Valley Community College concur.

Colleges reported collaborative ventures such as the cooperative program between Black Hawk College and Scott Community College. An assessment of the college's local job market showed 66 residential and 92 commercial openings through 1995, creating a favorable job market for graduates. The College of DuPage is a participant in a DAVTE apprenticeship training grant

to develop HVAC technicians with work-based training. Students enter the program through a 2+2 agreement. The College of Lake County has a pilot project with Refrigeration Service Engineers Society (RSES) which develops and supplies support materials for the industry. Moraine Valley Community College's facility is used by the local RSES group, which further enhances exposure to the program. At Prairie State College, the program facility serves as a test site to the National Air Conditioning Certification Test. Sixty-four percent of the students at Prairie State College received financial support from employers to continue their training. Oakton Community College has lowered costs by generating revenues by providing space and assistance for weekend trade shows and seminars on campus and by seeking donations of equipment from local businesses. Staff participation in professional societies has strengthened the college's visibility among industrial firms in the area. Waubonsee Community College reports program enrollment has doubled; retention is 97 percent.

Issues and recommendations. Labor market information and student follow-up results indicate that specific community colleges need to take action to decrease enrollments, or regionalize or withdraw programs. ICCB staff will be working with colleges to create a better balance between supply and demand and improve students' opportunities for employment.

Labor Market Information for all Occupational Programs. One final question was posed to community colleges concerning the 1992 Student Follow-up. It concerns the level of satisfaction respondents gave to two areas. Graduates were least satisfied with labor market information (M = 3.46/5.0) and career planning services (M = 3.64/5.0). Since these results parallel responses from previous years, colleges were asked to furnish recommendations for improving information and services to students. Suggestions were requested which could be implemented locally or at the state level.

Several institutions replied that computerized data through the Occupational Information Survey (OIS) published by the Illinois Occupational Information Coordinating Committee (IOICC) is complex and difficult to analyze. Colleges requested that OIS be expanded to include educational requirements and salary information and be directly available to students via computers. OIS data are available by community college district and additional narrative data are being added. Hence, additional training is needed to demonstrate how to access such information. This coincides with the recommendation by Lake Land College which suggested that state workshops be held to raise awareness of the uses of labor market statistics and to gain input on ways to improve usage. Consequently, ICCB staff will include a presentation on labor market analysis by a representative from the IOICC in an upcoming workshop. Lake Land College further suggested developing a survey to determine types of career planning services currently available. In addition, staff which are known to have developed exemplary programs could comprise a statewide committee to improve career planning services. Furthermore, efforts through the statewide school-to-work initiative are underway to rectify weaknesses in this area which will benefit all community colleges.

Joliet Junior College is seeking to computerize job bulletin information so students/alumni can obtain pertinent details from terminals located through the campus. The college also reports that the Illinois Placement Coordinators are working with the national College Placement Council to break out salary information so it is more relevant to associate degree students. Rock Valley College will provide labor market information to faculty to be included in appropriate classes,

set up display booths to promote placement services, and hold an open house for college employees to visit the placement and career guidance center.

Progress was noted by numerous institutions. Colleges reported adding staff or increasing hours in counseling and placement offices, changing the location of this service to make it more visible, sponsoring seminars on career planning and job search skills, and holding job and career fairs. Moraine Valley Community College reports that job search assistance provided through workshops, seminars, and individual help sessions increased 35 percent over the previous year; job listings increased 16 percent; employers' voluntary donations for services increased 25 percent, and on-campus job recruitment increased 59 percent. Thirty-five employers conducted 1,595 interviews with job seekers. Highland Community College reports that the number of job openings received by the placement office tripled in the past year. The college's placement rate is 53 percent. McHenry County College began a partnership with its local job service. The college hopes to convert a manually updated job board to a more efficient computer-assisted list.

Despite these efforts, the problem is analogous to the adage that "you can lead a horse to water, but you can't make it drink." In other words, even though placement and career counseling services are available at community colleges, students do not necessarily take advantage of them.

Issues and recommendations. There are many innovative methods community colleges can and should use to improve students' awareness of factors such as job outlook (supply and demand), related occupations, salary information, and perhaps interests and related aptitudes. Community colleges foster accountability when this information is provided in college catalogs, included in introductory courses or one-credit required courses. Career planning information can be conveyed to high schools through recruitment activities. It is essential that faculty and staff work together through local efforts and statewide groups, such as Career Deans and the Student Services Commission of the Illinois Council of Community College Administrators, to make improvements in this area.

General Education

Academic disciplines at community colleges were involved in a flurry of activity during fiscal year 1994. Not only were faculty seeking methods to improve the teaching/learning process, identify desired student outcomes, and improve retention, but many were setting articulation history in Illinois by actively participating on panels, testifying at public hearings, and discussing related issues on local campuses as the statewide initiative, which resulted in the General Education Transferable Curriculum, took shape.

A total of 176 academic disciplines and 53 developmental/adult education programs were reviewed during fiscal year 1994.

Academic programs, like occupational programs, are evaluated according to need, quality, and cost criteria. The need for a particular discipline frequently is determined by enrollments and credit hour generation. Costs generally are ascertained through an analysis of unit cost data or a cost/revenue analysis. A myriad of quality indicators may be used. From college reports,

there appears to be a growing emphasis on retention as a critical factor in determining program quality. This trend stems from institutional efforts to enhance teaching and learning, a focus on student success, and recent attention being given to retention and completion statistics at the federal level. Other commonly selected quality indicators include facility and equipment access/condition, technological upgrades, evidence of full- and part-time faculty/staff development, and community involvement. The following information from program review report submissions provides a synopsis of activities organized by general education component.

Communications. Disciplines within this component include speech and written English. Nationwide, there is a progressive effort to convert traditional instruction in composition to computerized instruction. Therefore, it is not surprising that colleges frequently mentioned the need to add or upgrade computers for writing classes and related cost concerns. Heartland Community College extended a computer-assisted writing (CAW) component to all composition classes. Elgin Community College recently completed a year-long endeavor with Judson College to strengthen student assessment and placement and enhance writing curricula. The college is pilot-testing *Textra*, a new computer composition program to be used in transfer-level courses. Danville Area Community College is experimenting with "client based research papers." Research topics are solicited from businesses and residents who have legitimate questions or problems that can be addressed through the research process. Copies of the completed work are returned to the person who made the inquiry. Along quality improvement lines, Moraine Valley Community College plans to standardize the minimum number of papers required in composition classes, define departmental grading standards for evaluation essays, and expand course outlines with detailed objectives to enhance consistency. The college also remodeled and refurbished a suite of three speech classrooms to provide students with maximum opportunities for a realistic public speaking environment, including access to video tape. State Community College will develop a college television news and commentary program as part of its mass communications major.

Humanities. Departments encompassed in humanities include fine arts, history, literature, philosophy, and religious studies. College reports revealed that many humanities courses were modified to reflect a world view by emphasizing multicultural and non-Western perspectives. The College of DuPage added a humanities course for its Phi Theta Kappa leadership development initiative. Triton College is in the process of adding one hour courses relating humanities to technology for career students. In literature, Wilbur Wright College described plans to develop common exit criteria for all classes. Moraine Valley Community College is considering COM 101 as a prerequisite for all literature courses to ensure that students are adequately prepared for writing research papers. Faculty at Parkland College publish *Tamaqua*, a literary magazine with nationwide distribution as an extracurricular activity. Community involvement was evidenced in reports from several colleges. Prairie State College has a "Night of Jazz" which gives jazz band members an opportunity to perform before nationally renowned jazz professionals. The three-day event which surrounds this activity also provides elementary and secondary school jazz students the chance to learn from the professional jazz clinicians. The college's emphasis on jazz evolved from a planning charette for the Performing Arts and a Citizen's Advisory Group. A poet series is a community service sponsored by Highland Community College.

Science. Escalating enrollments in health programs act as a contagion for enrollments in science classes. Colleges report enrollments in Anatomy/Physiology and Microbiology have increased as much as 80 percent in the past five years. However, such phenomenal growth has its downside. Numerous institutions are capping enrollment because of insufficient lab facilities. Furthermore, the costs of materials and supplies are increasing. Some colleges are instituting volume purchasing or cooperative buying. Others, such as Illinois Central College, are dealing with cost concerns, waste disposal, and keeping current with changes in the field by replacing traditional equipment and glassware in chemistry classes with micro-devices.

Math. Credit hour increases were noted in this discipline as well. Nearly all colleges have implemented more stringent policies requiring assessment and mandatory course placement. South Suburban College recorded a three-year rise of 34 percent in math enrollments. Students are required to register for prescribed developmental courses if assessment scores so indicate, and must obtain a grade of C or better in order to proceed to the next level. In cooperation with math faculty from Governors State University and supported by a partnership grant from the National Center for Academic Achievement and Transfer funded by the American Council on Education, faculty developed a *Study Skills Module for Mathematics*. Spoon River College is purchasing software for student use in order to supplement instruction in higher-level math classes.

Social and Behavioral Science. Disciplines included under this heading are economics, history, human geography, political science, sociology, psychology, and anthropology. Faculty recorded concerns whether minimum levels of reading competency should be required before class registration is permitted. Illinois Valley Community College, during the past four years, has been evaluating and eliminating social science courses with poor articulation. Triton College's political science division established an Amnesty International Chapter and participated in the seminar on the Presidency as an institutional member of the Center for the Study of the Presidency. The college's social and behavioral science faculty established goals to diversify approaches to teaching, break down the distance between teacher and student, thoroughly explain the syllabus and class expectations on the first day of class, and improve teacher availability.

Foreign Language. The recent emphasis on international studies has helped to reinforce the importance of developing both language proficiency and cultural understanding and pave the way for growth of foreign language programs. Report submissions showed considerable variation in first-year enrollments in foreign language. Whereas enrollments increased significantly at one institution, decreases were noted at others. Second year enrollments were more consistent. Low enrollments are common and may cause classes to be canceled. Foreign language course attrition rates are often higher than the college average. Institutions are seeking ways to address these problems. Cooperative arrangements utilizing telecommunications may provide part of the solution to low enrollments in foreign language classes.

Developmental Education

Developmental Education comprises remedial courses in math, writing, and reading. This segment of community college instruction represents 4.8 percent of the total credit hours generated by all students in the system. Approximately 11 percent of the student population are

enrolled in one or more remedial courses. Belleville Area College attributed increases in credit hour generation (58.2 percent) to changing student demographics and greater awareness of the need for remedial courses. Incremental gains in enrollments have been brought about by changes in institutional policies which mandate remediation if test results warrant. Colleges reported that 20 to 60 percent of incoming freshmen are in need of some form of remedial coursework. Several colleges are considering making all remedial courses open entry. Numerous institutions are expanding instruction to include computer-based approaches. Many noted the need for better follow-up data on completions, retention, advancement to college-level coursework, and levels of student satisfaction.

Adult Basic, Adult Secondary, and English as a Second Language. Ten colleges reviewed these programs. Concerns communicated in reviews included the amount of time and effort spent on records and reports due to funding by many separate agency grants. In addition, credit hours generated in adult education programs far exceed the number eligible for reimbursement through the Illinois State Board of Education (ISBE). Adult education funding was the reason a task force was convened which included ICCB staff, representatives from the ISBE, several community college presidents, and superintendents of public schools. A report which recommends increases in funds to adult education programs is now before the state board. Additional concerns expressed by local college staff in report submissions included the need to expand efforts to reach target populations, developing better tracking systems, and improving retention and students' ability to transition from one program to another. To address the latter, ICCB staff have redefined CIP codes by level to help determine the number of program completions and the movement of students within programs and from program to program.

Morton College reported that, between 1989 and 1993, enrollment in ABE and GED courses increased by 50 percent. The program's active advisory committee was praised by NCA Consultant-evaluators. Oakton Community College computed that, in fiscal year 1992, 400 volunteers contributed the equivalent of $413,875 to the institution (based on the Secretary of State's rate of $10.75 per hour for volunteer services multiplied by 38,500 hours of instruction and tutoring). Richland Community College renamed and redefined ESL courses to reflect their level of difficulty. The college added "English Express," an ESL computer-assisted program purchased through the ICCB Center of Excellence grant award.

Academic and Student Support Programs

Academic and student support programs generally determine program need by ascertaining the levels of student/user participation and whether or not the services are duplicated by other services on campus. Program costs may be evaluated through a unit cost analysis, cost per program completer/user, or by a review of the budget to assess whether costs are proportionately in line with departmental goals. Program quality is often based on whether services are accessible and available; results of student satisfaction surveys; and condition or use of facilities, equipment, or other resources.

Numerous quality trends were apparent in college reports on these program areas, mostly through the addition of technological upgrades. Institutions are adding or improving methods of utilizing technology in assessment and tutoring, advisement, registration, transmitting

transcripts, and providing access to library resources through databases and automated card catalogs. A myriad of innovative examples describing ways in which community college academic and student support services respond to student needs is recounted in reports each year. The following describe only a portion of these efforts.

Testing/Assessment. As Parkland College and Belleville Area College reported, testing centers are performing an increasingly important role. Changes in policies to mandate basic skills assessment for greater numbers of students are a primary reason for this. In addition, centers administer tests to qualify students to enter various career programs, for make-up tests, for administrative support as in the case of proficiency exams for job applicants, or in response to various requests from agencies and businesses within the community. Staff may interpret test results, provide advisement, and maintain records. Although testing needs are multiplying, staff levels remain virtually the same due to budgetary constraints. Providing services and test results in an efficient, effective manner is a constant challenge. McHenry County College has found that by utilizing technology-based assistance where feasible, it can offset needs for additional staff. Several other institutions are attempting to deal with rising costs by making testing services generate revenue. Morton College uses AccuPlacer, a computerized assessment program, which is available in six locations on campus. This approach alleviates the need for students to set appointments and results are immediately available. College staff are available to provide further assistance based on student needs.

Learning Resource Centers. Libraries at community colleges have witnessed dramatic changes in recent years due to technological advancements. Staff are automating collections, adding resources via databases, and installing/operating telecourse instruction — all at considerable, yet necessary expense. At Belleville Area College, library circulation has doubled since 1986. This trend is attributed to growing enrollments and to faculty cooperation in referring students to LRC services. Carl Sandburg College has effectively used grant funding to upgrade its facility. The college currently is seeking funding to become an on-line member of the Resource Sharing Alliance of Western Illinois and to obtain access to Internet.

Instructional Support Services. Program review reports detailed efforts to expand computer-based learning systems and provide sufficient facilities for supplementing classroom instruction. Valuing the efforts of its tutors, Lake Land College plans to establish awards for exemplary employees.

Counseling. Retention concerns prompted Parkland College to form a committee which recommended separating students into high and low risk categories for advisement purposes and establishing a mandatory assessment policy in reading. Southeastern Illinois College has a grant-funded program which is aimed at improving retention of 150 first generation students each year. Waubonsee Community College's counseling staff provides an information session and campus tour for GED completers, a student population often overlooked in recruitment efforts. Black Hawk College has initiated a "World of Difference" award intended to acknowledge students who voluntarily assisted other students and contributed to a positive campus atmosphere. Joliet Junior College implemented the Student Assistance Program (SAP) as part of a substance abuse prevention plan in which peer "helpers" support emotional needs of students. Students meet informally with a peer, verbalize and evaluate problems, and are referred to professional staff as needed.

Financial Aid. The number of community college students receiving financial aid is escalating. College reports described concerns due to substantial increases in the volume of financial aid applications, subsequent increases in audit liabilities, amount of time required per eligibility interview, maintaining confidentiality, and the lack of adequate services to students attending night classes. Some institutions, including Highland Community College, have implemented specialized software programs to address the need to improve communications with students and obtain accurate data to comply with federal and state reporting requirements.

Enrollment Management. Illinois Central College activated a "customer service" approach, identifying both internal and external customers. The goal is to improve courteousness, demonstrate a willingness to explain policies and procedures, improve communications between departments, enhance student referral procedures, and provide or supplement pre-enrollment activities, such as basic skills testing or campus visits for high school students. The college has implemented an electronic exchange of transcripts with Bradley University and Illinois State University. Harry S Truman College initiated a recruitment campaign called "Each One Reach One." This effort expanded outreach activities for the Truman/Lakeview Adult Learning Skills Program (ALSP) Bridge program and was affiliated with the college's "Adopt a School" initiative.

Supplemental Programs. Richland Community College described impressive statistics for its Opportunities program which seeks to help AFDC (Aid to Families with Dependent Children) recipients achieve self-sufficiency. The number of participants grew 175 percent from 1990 to 1993. The success of the program has been strengthened by initiatives such as "Walk-in Wednesdays," a retention effort which provides an opportunity for students to meet with faculty and staff before finals and midterms on a walk-in basis. At Harry S Truman, enrollment in Weekend College programs increased 77 percent between fall 1989 and fall 1993. Effective utilization of resources surged as campus facility usage rose to nearly 90 percent on Saturdays. The college plans to increase staffing, add a budgetary line item for Weekend College, develop a marketing plan, increase the number of student services, identify weekend-specific degrees and certificates, and develop weekend-to-weekend college articulation agreements with appropriate senior institutions. Southeastern Illinois College has a Special Needs Assistance Program (SNAP) which is designed help special needs students reach their goals. It provides academic/vocational training and support services to JTPA eligible individuals with documented physical and academic disabilities. Students benefit from special attention which enables them to acquire job skills and subsequent employment.

Conclusion

This report provides evidence of the continuing efforts of Illinois public community colleges to be accountable in the programs and services they provide through the process of program review, an initiative enacted by the ICCB in 1983. Overall, these processes are very effective. They combine perspectives of businesses, peers, students, faculty, and staff to analyze programs and services. The numerous innovative improvements and sometimes difficult decisions which originate from program reviews result in curricula which are accountable, of high quality, and invaluable to residents of the state and the communities in which they live.

Fiscal year 1994 data showed that 870 occupational, 176 academic, 90 student and academic support service, 53 developmental and adult education, and 22 other programs were reviewed. The program review of occupational programs resulted in improvements to 726 programs. Sixty-eight (8 percent) of the 870 programs were identified for withdrawal.

Occupational Program Review. Labor market information is critical to determining the need for occupational programs. In addition, statewide data from the student follow-up survey provide useful information on what happens to students once they graduate. An examination of these indicators and additional information presented in program review reports leads to the following conclusions: The need for certain programs, from a statewide perspective, is well documented. These areas include Business Administration and Management, Mortuary Science, Engineering-related programs in Quality Control, Mechanical Engineering, Precision Work programs in Graphics/Printing and most curricula in Precision Metal, Medical Laboratory Technology, Ophthalmology, Therapeutic Recreation, and Library Assisting. Colleges are initiating various improvements to such programs and there is an appropriate balance between supply and demand in the Illinois labor market.

However, several other program areas require further analysis. Concerns have been raised because follow-up study results show that a disproportionate number of students are unemployed or not employed in their field. Moreover, labor market information shows a diminishing demand for workers, or a need for workers with particular skills. This information does not imply that all such programs are problematic; indeed, there are numerous examples of quality programs which serve an important niche in certain regions of the state. However, a statewide perspective indicates a need for further analysis to be conducted by ICCB staff with the assistance of college representatives.

- Accounting/Bookkeeping. Accounting/bookkeeping programs provide important skills which are utilized in many types of Illinois businesses. However, statewide labor market information shows that employment opportunities for accounting technicians are decreasing significantly. Forty percent of the students responding to the follow-up survey indicated they were employed in a job unrelated to their field of study. Solutions need to be found in terms of modifying curricula, limiting enrollments, and consolidating or eliminated programs. Leadership was displayed by colleges which established entrance requirements and prerequisite courses to increase retention in beginning-level courses and capstone programs to help resolve potential transfer problems for students. As many colleges reported, computerized instruction in this area is necessary in order for students to be competitive in the job market.

- Financial Management. Because of changes resulting from mergers and legislative amendments, this program appears to provide an important niche for students already employed. Nevertheless, students seeking to obtain employment in a financial institution after graduation may find that opportunities are not as favorable. Follow-up study results showed a 16.7 percent unemployment rate among program graduates. A statewide review of curricula in accordance with the American Institute of Banking (AIB) recommended coursework is warranted. Colleges are requested to modify catalogs and recruitment brochures to clearly designate whether programs are designed for transfer,

skills training, or students desiring career entry. Cooperative instruction would be advantageous, particularly for upper-level coursework.

- Drafting. The oversupply of qualified workers prompted colleges to eliminate 11 programs, schedule four for further review, and cap enrollments in one. Nearly all college reports noted the need to add or increase the amount of computerized instruction in drafting programs. ICCB staff will undertake a curricular review to ascertain current levels of computerized instruction statewide since graduates without some computer drafting abilities are unlikely to obtain employment.

- Welding. Statewide labor market information indicates that there are decreasing numbers of opportunities in some specialties and competition from laid-off welders. The unemployment rate of graduates responding to the *1992 Follow-up Survey* was 13.8 percent. Nearly one-third were working in jobs unrelated to their training. Statewide enrollment data indicate that program enrollments are declining, while course enrollment is increasing. It appears that persons already employed in a variety of occupations find that welding skills enable them to advance or keep their jobs. However, for job applicants seeking entry in the field of welding, opportunities are not as great. Therefore, college programs should be reflective of these labor market trends. Colleges with three or more distinct welding curricula are encouraged to consider whether all are needed to serve the local job market. If the role of a particular program is to provide skill upgrading for those already employed in the field, college catalogs should reflect this. Enrollment caps or program eliminations may be appropriate. College reports indicated that several institutions had already made such decisions.

- Heating, Air Conditioning, and Refrigeration. Statewide labor market data show an oversupply and 34.7 percent of surveyed graduates indicated they were employed in positions unrelated to their training. While colleges predict that enrollments will increase because of environmental concerns and related legislation, action to decrease enrollments, regionalize or inactivate programs, or work more closely with employers is advisable in the interim. Numerous institutions strengthened program accountability by taking such steps. Others may need to follow their examples. ICCB staff will develop plans with colleges to create a better balance between supply and demand and improve students' opportunities for employment.

- Interior Design. Seven colleges in the Chicago area offer interior design curricula. Reports from these institutions described plans to seek national accreditation, infuse technology, or make various other improvements. However, labor market information and follow-up study results revealed several concerns. For certificates and degrees to be relevant, there are strong implications that they should be articulated for transfer, serve a clearly identified local labor market niche, and be technologically current. Colleges are encouraged to impose enrollment caps to match employment opportunities. A task force of college deans and interior design department heads should be convened to analyze accrediting agency curriculum criteria and develop a plan for the future of interior design programs.

Overall, colleges are requested to include labor market and career information in brochures and catalogs to indicate jobs students may seek upon graduation and whether instruction is designed primarily for persons already employed or those seeking entry-level jobs, or both. Faculty may also include such information in introductory courses. Retention data should be examined and actions taken to improve retention rates where warranted. Lastly, colleges should develop five-year replacement plans for equipment and build this into institutional budgets.

Academic Programs. The most common indicator of program need for academic disciplines is enrollment. Little similarity was noted in enrollment data of the various disciplines mentioned in college reports. Enrollments may have grown considerably at one institution in a particular discipline and declined at another. Numerous disciplines added computerized instruction and began planning for instruction via distance learning. Some colleges expressed concern that laboratory space and costs of materials and supplies are resulting in enrollment caps. Colleges are encouraged to continue updating syllabi by identifying student outcomes, adding computerized instruction, examining course prerequisites to ensure students are adequately prepared for the challenges of the coursework, and determining causes of low retention rates and initiating action accordingly.

Student and Academic Support Programs. The need for student and academic support programs at community colleges should not be underestimated. Colleges continually seek to solve issues which impede student success. Increasing demands for necessary support services pose challenges for dedicated staff. Comments from institutional program reviews described efforts to improve access and availability through technological upgrades. Appropriate staff are encouraged to work with faculty, career deans, and peers in an effort to increase access and understanding of labor market information among students. Respondents to follow-up surveys over the past few years identified their satisfaction with labor market information and career planning services the lowest of all program components.

Accountability efforts by the 49 colleges in the community college system continue to be reinforced by the program review process, an initiative now eleven years old. Results confirm that community colleges are proactively addressing issues of program and institutional effectiveness, return on investment, technological advancements, and effectively meeting the needs of their communities.

Illinois Community College Board
Table 1
LIST OF PROGRAMS REVIEWED BY COMMUNITY COLLEGES
DURING FISCAL YEAR 1994

College	# of Occupational Programs Reviewed	# of Academic Programs Reviewed	# of Dev/Adult Education Programs Reviewed	# of Student Services Programs Reviewed	# of Academic Support Programs Reviewed	# of Other Programs Reviewed
Belleville	14	6	0	0	1	0
Black Hawk	16	0	0	4	0	1
Chicago						
Daley	10	0	0	0	0	0
Kennedy-King	24	0	0	0	0	0
Malcolm X	11	0	0	0	0	0
Olive-Harvey	10	0	4	2	4	0
Truman	7	3	0	1	2	0
Washington	41	3	0	0	0	0
Wright	22	4	1	0	1	0
Danville	23	1	1	1	0	0
DuPage	32	4	0	3	3	0
Elgin	29	2	1	1	0	0
Harper	28	3	0	1	0	0
Highland	7	5	1	2	0	0
IL Central	20	5	0	1	0	0
Illinois Eastern						
Frontier	7	7	4	4	2	4
Lincoln Trail	20	7	2	0	3	3
Olney	11	7	0	4	0	0
Wabash	11	7	3	4	2	5
IL Valley	8	1	0	0	0	0
Joliet	21	6	0	1	0	0
Kankakee	17	22	6	7	2	0
Kaskaskia	17	0	0	0	0	0
Kishwaukee	16	0	0	0	0	0

Illinois Community College Board
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DURING FISCAL YEAR 1994

College	# of Occupational Programs Reviewed	# of Academic Programs Reviewed	# of Dev/Adult Education Programs Reviewed	# of Student Services Programs Reviewed	# of Academic Support Programs Reviewed	# of Other Programs Reviewed
Lake County	40	1	0	1	1	0
Lake Land	14	1	3	0	2	0
Lewis & Clark	15	0	0	0	0	1
Lincoln Land	10	9	0	0	0	0
Logan	13	6	0	0	0	0
McHenry	11	2	0	1	1	1
Moraine Valley	39	9	0	4	0	1
Morton	7	3	2	0	1	0
Oakton	27	0	4	0	1	1
Parkland	7	7	4	1	1	0
Prairie State	14	4	0	0	0	0
Rend Lake	14	2	2	0	0	0
Richland	11	4	1	2	1	2
Rock Valley	36	2	1	0	2	0
Sandburg	12	1	0	2	1	0
Sauk Valley	17	2	5	0	0	1
Shawnee	1	0	0	0	0	0
South Suburban	34	1	0	0	0	0
Southeastern	7	3	0	1	0	1
Spoon River	13	2	0	0	0	0
State	11	4	0	2	1	0
Triton	50	11	1	1	3	1
Waubonsee	32	7	4	1	1	0
Wood	13	2	3	2	0	0
TOTALS	870	176	53	54	36	22

Illinois Community College Board
Table 2
SUMMARY OF FISCAL YEAR 1994 REVIEWS OF
OCCUPATIONAL PROGRAMS BY COLLEGE

College	Number of Programs Reviewed	Number Continued with Minor Improvements	Number Significantly Modified	Number Scheduled for Further Review	Number Identified for Elimination
Belleville	14	5	7	1	1
Black Hawk	16	14	1	1	0
Chicago					
Daley	10	9	0	0	1
Kennedy-King	24	5	19	0	0
Malcolm X	11	10	0	0	1
Olive-Harvey	10	5	0	0	5
Truman	7	7	0	0	0
Washington	41	26	1	6	8
Wright	22	12	0	7	3
Danville	23	18	0	3	2
DuPage	32	23	8	0	1
Elgin	29	29	0	0	0
Harper	28	27	0	0	1
Highland	7	6	0	0	1
Illinois Central	20	17	0	1	2
Illinois Eastern					
Frontier	7	7	0	0	0
Lincoln Trail	20	10	0	6	4
Olney	11	9	0	2	0
Wabash Valley	11	10	0	0	1
Illinois Valley	8	4	3	1	0
Joliet	21	12	2	0	7
Kankakee	17	15	2	0	0
Kaskaskia	17	16	0	0	1
Kishwaukee	16	13	1	1	1

Illinois Community College Board
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OCCUPATIONAL PROGRAMS BY COLLEGE

College	Number of Programs Reviewed	Number Continued with Minor Improvements	Number Significantly Modified	Number Scheduled for Further Review	Number Identified for Elimination
Belleville	14	5	7	1	1
Lake County	40	39	0	1	0
Lake Land	14	13	0	0	1
Lewis & Clark	15	12	2	0	1
Lincoln Land	10	3	5	2	0
Logan	13	12	0	1	0
McHenry	11	4	3	2	2
Moraine Valley	39	36	0	1	2
Morton	7	5	1	0	1
Oakton	27	22	5	0	0
Parkland	7	7	0	0	0
Prairie State	14	11	0	2	1
Rend Lake	14	8	3	3	0
Richland	11	11	0	0	0
Rock Valley	36	22	0	11	3
Sandburg	12	9	0	0	3
Sauk Valley	17	14	0	0	3
Shawnee	1	1	0	0	0
South Suburban	34	30	3	1	0
Southeastern	7	5	0	0	2
Spoon River	13	3	0	8	2
State	11	8	0	3	0
Triton	50	33	3	8	6
Waubonsee	32	20	5	7	0
Wood	13	12	0	0	1
TOTALS	870	649	74	79	68

Illinois Community College Board
Table 3
OCCUPATIONAL PROGRAMS ELIMINATED THROUGH PROGRAM REVIEW
IN FISCAL YEAR 1994

District/College	Program Title	CIP
Belleville	Agriculture Business and Supply degree	01.0101
City Colleges Daley	Drafting & Machine Design	48.0105
Olive-Harvey	Architectural Technology, 2 certificates Clerical/Typing, 3 certificates	48.01 52.04
Malcolm X	Mid-Management degree	52.0201
Washington	Architectural Technology, 1 degree, 2 certificates Banking/Finance, 2 certificates Mid-Management certificate Secretarial Medical certificate Typing certificate	48.0102 52.0803 52.0201 52.0404 52.0408
Wright	Commercial Art, 1 degree, 2 certificates	48.0201
Danville	Architectural Drafting/CAD certificate Heat/Vent/AC certificate	15.0805 47.0201
DuPage	Environmental Health	15.0701
Harper	Banking certificate	52.0803
Highland	Secretarial/Stenographer certificate	52.0401
Illinois Central	Numerical Control Technology, degree and certificate	48.05
Illinois Eastern Lincoln Trail	Drafting Technology certificate Sheet Metal certificate Office Careers: Petroleum degree and certificate	48.01 48.05 52.04
Wabash Valley	Library Media Technology degree	25.0301
Joliet	Adding & Machine Calculating certificate General Clerk certificate Gregg Shorthand certificate Data Entry Device certificate Machine Shorthand certificate Machine Transcription certificate Typewriting certificate	52.04 " " " " " "
Kaskaskia	General Business degree	52.04
Kishwaukee	Accounting degree	52.0302
Lake Land	Banking degree	52.0803
Lewis & Clark	Welding certificate	48.0508

Illinois Community College Board
Table 3
OCCUPATIONAL PROGRAMS ELIMINATED THROUGH PROGRAM REVIEW
IN FISCAL YEAR 1994

District/College	Program Title	CIP
Belleville	Agriculture Business and Supply degree	01.0101
McHenry	Marketing-Retail Option degree Retailing certificate	08.0706 "
Moraine Valley	Finance & Credit:Savings and Loan Option degree Word Processing Management certificate	52.0803 52.0402
Morton	Drafting Technology certificate	48.0105
Rock Valley	3 Quality Control certificates	15.07
Sandburg	Machine Tool degree Construction Drafting certificate Machine Drafting & Design certificate	15.0805 48.01 48.01
Sauk Valley	Industrial/Business Safety certificate Solar Energy certificate Industrial/Business Safety certificate	15.0701 47.0201 15.0701
Southeastern	Junior Accountant certificate Mid-Management degree	52.03 52.02
Spoon River	Industrial Drafting & Design certificate Manufacturing Engineering Tech degree	48.01 15.08
Triton	Machine Tool Tech/Machinist degree Tool Maker/Grinder certificate Machine Repair Specialist certificate Millwright certificate Business Management/Financial degree Business Management/Information Systems degree	48.0503 " " " 52.0201 "
John Wood	Business/Financial Services degree	52.08